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1 UNITED STATES PATENT AND TRADEMARK OFFICE
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4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES
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8 *Ex parte* GREG LINDEN
9

10 Appeal 2007-0702
11 Application 09/538,679
12 Technology Center 3600
13
14

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16 Decided: January 9, 2008
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18

19 Before HUBERT C. LORIN, ANTON W. FETTING, and
20 JOSEPH A. FISCHETTI, *Administrative Patent Judges*.
21 FETTING, *Administrative Patent Judge*.

22 DECISION ON APPEAL
23

24 STATEMENT OF CASE

25 Greg Linden (Appellant) seeks review under 35 U.S.C. § 134 of a
26 Final Rejection of claims 1-36, 56, and 57, the only claims pending and not
27 withdrawn in the application on appeal.¹

¹ Claims 42-53 are cancelled and claims 37-41 and 54-55 are withdrawn.

1 We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b)
2(2002).

3
4 We AFFIRM-IN-PART.

5 The Appellant invented a way for automatically identifying similar
6purchasing opportunities. For example, for an initial auction, the invention
7can identify auctions, or purchasing opportunities of other types, that offer
8the same or a similar item, similar prices or other terms (Specification 2:14-
917).

10 Descriptive information about an initial purchasing opportunity is
11used to identify purchasing opportunities that are similar to the initial
12purchasing opportunity. The descriptive information may describe the item
13offered, as well as other terms of the purchasing opportunity, such as price,
14availability, seller identity or location, purchasing opportunity type
15(Specification 2:18-24).

16 Initially, key words occurring in the descriptive information for an
17initial purchasing opportunity are identified whose occurrence tend to best
18differentiate the initial purchasing opportunity from others. Then a score is
19attributed to each key word quantifying this tendency. In a preferred
20embodiment, key words are identified and scores attributed using the inverse
21document frequencies of the terms occurring in the descriptive information
22for the initial purchasing opportunity. The inverse document frequency of a
23term measures the fraction of occurrences of the term among the descriptive

1information for all of the purchasing opportunities that occur in the
2descriptive information for the initial purchasing opportunity. For example,
3if a particular term occurred three times in the descriptive information for
4the initial purchasing opportunity and occurred 100 times in the descriptive
5information for all of the purchasing opportunities, that term would have an
6inverse document frequency of 3%, or .03 (Specification 2:25-3:9).

7 The descriptive information is searched for all of the purchasing
8opportunities to determine, for each key word, which purchasing
9opportunities' descriptive information contains the key word. Then
10similarity scores are generated for at least some of the other purchasing
11opportunities by, for each such purchasing opportunity, summing the scores
12of key words that occur in the purchasing opportunities (Specification 3:10-
1317).

14 The purchasing opportunity scores may then be used to order the
15purchasing opportunities based upon their level of similarity to the initial
16purchasing opportunity (Specification 3:18-27).

17 An understanding of the invention can be derived from a reading of
18exemplary claims 1 and 2, which are reproduced below [bracketed matter
19and some paragraphing added].

20 1. A method in one or more computer systems for identifying
21 auctions offering units of the same item, comprising:
22 [1] displaying information about a first auction,
23 the information including a description of a first item unit
24 offered in the first auction;

1 [2] receiving user input requesting information about other
2 auctions offering item units that are units of the same item as
3 the first item unit;
4 [3] determining,
5 for the description of the first item unit
6 among descriptions of item units
7 offered in a group of auctions including the first
8 auction,
9 the inverse document frequency of terms occurring
10 within the description of the first item unit;
11 [4] selecting a plurality of terms
12 within the description of the first item unit
13 having the largest inverse document frequencies;
14 [5] for each of the selected terms,
15 conducting a search for auctions in the group
16 whose item descriptions contain the selected term;
17 [6] for each auction found in at least one of the conducted
18 searches,
19 determining which of the selected terms occur in the
20 auction's item description;
21 [7] identifying
22 as an auction offering an item unit that is a unit of the
23 same item as the first item unit[,]
24 an auction among the found auctions
25 where the sum of the inverse document
26 frequencies of the selected terms that occur in the
27 item description for the auction exceeds a
28 threshold; and
29 [8] displaying information about the identified auction.

1 2. A method in a computer system for identifying purchasing
2 opportunities within a set of purchasing opportunities that are
3 similar to a distinguished purchasing opportunity, the
4 distinguished purchasing opportunity having descriptive
5 information associated with it, comprising:
6 [1] for each of a plurality of terms occurring in the descriptive
7 information associated with the distinguished purchasing
8 opportunity,
9 generating a term score
10 reflecting the extent to which
11 the occurrence of the term in the descriptive
12 information associated with the
13 distinguished purchasing opportunity
14 differentiates
15 the distinguished purchasing opportunity
16 from other purchasing opportunities in the
17 set;
18 [2] selecting as key words a plurality of terms having the
19 highest term scores;
20 [3] identifying purchasing opportunities of the set containing
21 one or more key words;
22 [4] establishing a purchasing opportunity score
23 for each identified purchasing opportunity
24 by summing the term score of the one or more key words
25 occurring in descriptive information associated with the
26 identified purchasing opportunities; and
27 [5] displaying information about one or more of the identified
28 purchasing opportunities.
29

1 This appeal arises from the Examiner's Final Rejection, mailed June
 214, 2004. The Appellant filed an Appeal Brief in support of the appeal on
 3May 9, 2005. An Examiner's Answer to the Appeal Brief was mailed on
 4May 19, 2006. A Reply Brief was filed on July 19, 2006. The Appellant
 5presented arguments telephonically at a hearing on December 19, 2007.

6 PRIOR ART

7 The Examiner relies upon the following prior art:

8	<u>Ishikawa</u>	<u>US 5,848,407</u>	<u>Dec. 8, 1998</u>
9	<u>Ishikawa</u>	<u>US 5,848,407</u>	<u>Dec. 8, 1998</u>
10	<u>Sato</u>	<u>US 6,212,517 B1</u>	<u>Apr. 3, 2001</u>
11	<u>6,212,517 B1</u>	<u>Apr. 3, 2001</u>	<u>US</u>

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15Phillips Semiconductors; PIP for Compandor SA571-,
 16<http://www.kwantlen.bc.ca/electroncis/eltn2319/edata/lab/datasheets/compa>
 17ndor571.html (last visited Aug. 27, 2003).

18 REJECTIONS

19 Claim 1 stands rejected under 35 U.S.C. § 112, first paragraph, as not
 20enabling a person of ordinary skill in the art to make and use the claimed
 21subject matter from the original disclosure.

22 Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as
 23failing to particularly point out and distinctly claim the invention.

1 Claims 1-36, 56, and 57 stand rejected under 35 U.S.C. § 103(a) as
2unpatentable over Phillips, Sato, and Ishikawa.

3 ISSUES

4 The issues pertinent to this appeal are

- 5 • Whether the Appellant has sustained its burden of showing that the
6 Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, first
7 paragraph, as not enabling a person of ordinary skill in the art to make
8 and use the claimed subject matter from the original disclosure.
- 9 • Whether the Appellant has sustained its burden of showing that the
10 Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, second
11 paragraph, as failing to particularly point out and distinctly claim the
12 invention.
- 13 • Whether the Appellant has sustained its burden of showing that the
14 Examiner erred in rejecting claims 1-36, 56, and 57 under 35 U.S.C. §
15 103(a) as unpatentable over Phillips, Sato, and Ishikawa.

16 The pertinent issues turn on whether (1) the claim 1 limitation of a
17same item is enabled and definite, and whether (2) the art describes the use
18of an inverse document frequency as recited in claim 1, and whether (3) the
19art describes the use of terms scores as recited in claim 2.

1 FACTS PERTINENT TO THE ISSUES

2 The following enumerated Findings of Fact (FF) are believed to be
3supported by a preponderance of the evidence.

4 *Claim Construction*

- 5 1. The disclosure contains no lexicographic definition of “same.”
6 2. The ordinary and customary meaning of “same” is (1) being the
7 very one; identical; (2) similar in kind, quality, quantity, or
8 degree; (3) conforming in every detail; or (4) being the one
9 previously mentioned or indicated; aforesaid.²

10 *Phillips*

- 11 3. Phillips is an electronic manufacturer’s sales information sheet
12 describing a particular electronic device referred to as model
13 SA571 of a compandor.³

14 *Sato*

- 15 4. Sato is directed toward a subsystem of a document retrieval
16 system for receiving a list of documents (or texts) selected from a
17 text base and providing a list of keywords ranked in order of
18 importance in the selected text group (Sato 1:7-11).

31² *American Heritage Dictionary of the English Language* (4th ed. 2000).

32³ A compandor is a combination of a signal compressor and expander, each
33of which may be used independently (www.atis.org/tg2k/_compandor.html).

- 1 5. Sato describes a computation of a degree of importance for each
2 search term that is based upon, among other variables, an inverse
3 document frequency for that term. Sato performs a search based
4 upon the degree of importance of terms (Sato 5:58 – 7:33).
- 5 6. Sato does not describe identifying information based on a measure
6 exceeding a threshold.
- 7 *Ishikawa*
- 8 7. Ishikawa is directed toward a hypertext document retrieving
9 apparatus in which a plurality of hypertext documents likely to
10 meet a user's retrieval request are retrieved from a large volume of
11 hypertext documents and are presented to the user (Ishikawa 1:7-
12 12).
- 13 8. Ishikawa describes a computation of a product for each search
14 term of an occurrence frequency (TF) with an inverse document
15 frequency (IDF). Sato performs a ranking of results based upon
16 these products of the terms (Ishikawa 7:45 – 8:9). This ranking
17 may also be on the sum of the products (Ishikawa 11:31-40).
- 18 9. Ishikawa describes a user entering keywords for a search, and
19 documents containing one or more of those keywords are
20 retrieved. These documents are then ranked as in FF .
- 21 10. Ishikawa does not describe identifying information based on a
22 measure exceeding a threshold.

1 PRINCIPLES OF LAW

2 *Claim Construction*

3 During examination of a patent application, pending claims are
4 given their broadest reasonable construction consistent with the
5 specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In*
6 *re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

7 Limitations appearing in the specification but not recited in the claim
8 are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d
9 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted “in view of the
10 specification” without importing limitations from the specification into the
11 claims unnecessarily).

12 Although a patent applicant is entitled to be his or her own
13 lexicographer of patent claim terms, in *ex parte* prosecution it must be
14 within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant
15 must do so by placing such definitions in the specification with sufficient
16 clarity to provide a person of ordinary skill in the art with clear and precise
17 notice of the meaning that is to be construed. *See also In re Paulsen*, 30
18 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the
19 specific terms used to describe the invention, this must be done with
20 reasonable clarity, deliberateness, and precision; where an inventor chooses
21 to give terms uncommon meanings, the inventor must set out any
22 uncommon definition in some manner within the patent disclosure so as to
23 give one of ordinary skill in the art notice of the change).

1*Enablement*

2 The test of enablement is whether one reasonably skilled in the art
3could make and use the claimed invention based on the specification
4coupled with information known in the art without undue experimentation.
5*Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384
6(Fed. Cir. 1986), *cert. denied*, 107 S.Ct. 1606 (1987).

7*Indefiniteness*

8 If a claim is amenable to construction, “even though the task may be
9formidable and the conclusion may be one over which reasonable persons
10will disagree,” the claim is not indefinite. *Exxon Res. & Eng’g Co. v.*
11*United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

12*Obviousness*

13 A claimed invention is unpatentable if the differences between it and
14the prior art are “such that the subject matter as a whole would have been
15obvious at the time the invention was made to a person having ordinary skill
16in the art.” 35 U.S.C. § 103(a) (2000); *KSR Int’l v. Teleflex Inc.*, 127 S.Ct.
171727, 1729-30 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14
18(1966).

19 In *Graham*, the Court held that that the obviousness analysis is
20bottomed on several basic factual inquiries: “[(1)] the scope and content of
21the prior art are to be determined; [(2)] differences between the prior art and
22the claims at issue are to be ascertained; and [(3)] the level of ordinary skill
23in the pertinent art resolved.” 383 U.S. at 17. *See also KSR Int’l v. Teleflex*
24*Inc.*, 127 S.Ct. at 1734. “The combination of familiar elements according to

1known methods is likely to be obvious when it does no more than yield
2predictable results.” *KSR*, at 1739.

3 “When a work is available in one field of endeavor, design incentives
4and other market forces can prompt variations of it, either in the same field
5or [in] a different one. If a person of ordinary skill [in the art] can
6implement a predictable variation, § 103 likely bars its patentability.” *Id.* at
71740.

8 “For the same reason, if a technique has been used to improve one
9device, and a person of ordinary skill in the art would recognize that it would
10improve similar devices in the same way, using the technique is obvious
11unless its actual application is beyond his or her skill.” *Id.*

12 “Under the correct analysis, any need or problem known in the field
13of endeavor at the time of invention and addressed by the patent can provide
14a reason for combining the elements in the manner claimed.” *Id.* at 1742.

15 ANALYSIS

16 *Claim 1 rejected under 35 U.S.C. § 112, first paragraph, as not enabling a*
17 *person of ordinary skill in the art to make and use the claimed subject*
18 *matter from the original disclosure.*

19 The Examiner has failed to make out a prima facie case of a lack of
20enablement. As best we understand it, the Examiner takes the position that
21the claimed method is inoperable if the term “same” used in claim 1 means
22identical. However, the test for enablement is whether one reasonably skilled

1in the art could make and use the claimed invention based on the
2specification coupled with information known in the art without undue
3experimentation, not whether the Examiner has interpreted the claim so as to
4read on an inoperable embodiment. The Examiner does not appear to have
5considered the Specification and thus has not established that one reasonably
6skilled in the art could *not* make and use the claimed invention based on the
7specification coupled with information known in the art without undue
8experimentation. It is examiner's burden to show that one skilled in the art
9would have to resort to undue experimentation in order to practice the
10invention as broadly claimed. See *In re Marzocchi*, 439 F.2d 220, 224, 169
11USPQ 367, 370 (CCPA 1971).

12 The Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, first
13paragraph, as not enabling a person of ordinary skill in the art to make and
14use the claimed subject matter from the original disclosure.

15 *Claim 1 rejected under 35 U.S.C. § 112, second paragraph, as failing to*
16 *particularly point out and distinctly claim the invention.*

17 The Examiner found that the Appellant gave the word "same" a
18meaning different from identical, and further found the use of the word
19"same" to be indefinite because claim 1 is not specific regarding which
20definition applies (Answer 5).

21 The Appellant contends that its use of the term "same" in the context
22of "units of the same item" is consistent with its ordinary and customary
23meaning. Taking an item example of the Specification, a same item might

1be an item of the exact same model. This understanding of the term "units
2of the same item" is consistent both with the ordinary meaning of the term
3"same" and with the use of the term in the Specification itself (Appeal Br.
47:Bottom ¶ - 8:Top ¶).

5 We agree that one of ordinary skill would have known that a same
6item would be something like an item with the same model number.
7Although this is merely an example, one of ordinary skill in sales and
8auctions would understand the word "same" applied to "item" to be within
9the context of the items sold or auctioned. While the term is broad, it is
10amenable to construction.

11 The Appellant has sustained its burden of showing that the Examiner
12erred in rejecting claim 1 under 35 U.S.C. § 112, second paragraph, as
13failing to particularly point out and distinctly claim the invention.
14 *Claims 1-36, 56, and 57 rejected under 35 U.S.C. § 103(a) as unpatentable*
15 *over Phillips, Sato, and Ishikawa.*

16*Claim 1*

17 The Appellant argues claims 1, 56, and 57 as a group.

18 Accordingly, we select claim 1 as representative of the group.
1937 C.F.R. § 41.37(c)(1)(vii) (2007).

20 The Examiner found that Phillips described elements [1], [2], and [8].
21except for being applied to an auction, but took official notice of the

1notoriety of auctions. The Examiner found that Sato described elements [3]
2and [4], and that Ishikawa describes elements [5], [6], and [7] (Answer 5-6).

3 The dispositive Appellant contentions are that (1) neither reference
4selects a plurality of terms within the description of the first item unit having
5the largest inverse document frequencies (Reply Br. 9:First full ¶); and (2)
6neither reference identifies something where the sum of the inverse
7document frequencies of the selected terms that occur in the item description
8for the auction exceeds a threshold (Reply Br. 9:Bottom ¶ - 12:First ¶).

9 The Examiner cites Sato column 7, lines 27-30 for the largest inverse
10document frequency selection. The Appellant argues this portion of Sato
11examines Sato's degree of importance, not its inverse document frequency.
12We agree (FF). Since the Examiner has not shown that either reference
13selects terms having the largest inverse document frequency selection, the
14Examiner has not made a prima facie case as to element [4].

15 The Examiner cites Ishikawa column 7, line 53 to column 8 line 9 and
16column 11, lines 33-45 for identifying information where the sum of the
17inverse document frequencies of the selected terms that occur in the item
18description for the auction exceeds a threshold. The Appellant argues this
19portion of Ishikawa examines Ishikawa's importance degrees, not its inverse
20document frequency, and the Examiner never has a finding as to identifying
21by exceeding a threshold. We agree (FF , , and). Since the Examiner has
22not shown that either reference identifies information where the sum of the
23inverse document frequencies of the selected terms that occur in the item

1description for the auction exceeds a threshold, the Examiner has not made a
2prima facie case as to element [7].

3 The Appellant has sustained its burden of showing that the Examiner
4erred in rejecting claims 1, 56, and 57 under 35 U.S.C. § 103(a) as
5unpatentable over Phillips, Sato, and Ishikawa.

6*Claim 2*

7 The Appellant argues claims 2-36 as a group.

8 Accordingly, we select claim 2 as representative of the group.

9 The Examiner found that Phillips described identifying purchasing
10opportunities and element [5]. The Examiner found that Sato described
11elements [1] and [2], and that Ishikawa describes elements [3] and [4]
12(Answer 7-8).

13 The Appellant contends that (1) Ishikawa's key words are (1a)
14selected by a user rather than from an item description, and (1b) are
15computed differently than as computed in the Appellant's Specification
16(Reply Br. 13:First ¶); (2) that Ishikawa fails to use term scores in the two
17distinct ways recited in claim 2 of (2a) selecting keywords and (2b) scoring
18purchasing opportunities (Reply Br. 13:Bottom ¶ - 14:Top ¶); and (3)
19Phillips relies on product categories rather than product descriptions to find
20products (Appeal Br. 15).

21 As to the arguments regarding the search terms, the scope of the claim
22is not commensurate with argument (1a) because the terms a user enters in

1Ishikawa (FF), within the context of searching for an item as a purchasing
2opportunity, such as in Phillips, would be descriptive information associated
3with a a purchasing opportunity as in claim 2. Whether the terms are
4selected by a user makes terms no less associated with the item the terms
5describe. Whether the score for search terms are computed as in the
6Appellant's Specification is not pertinent since claims are construed
7according to their broadest reasonable interpretation during examination, and
8claim 2 does not specify the steps in scoring.

9 As to the arguments regarding the use of the scores, although both
10Sato and Ishikawa score keywords, it is Sato, not Ishikawa, that ranks
11keywords for searching (FF) and Ishikawa that ranks the results based on
12the sum of keyword scores (FF) that would represent purchasing
13opportunities within the context of searching for such opportunities. Thus,
14Sato teaches choosing the best search terms as in claim elements [1] and [2]
15and Ishikawa describes ranking results as in claim elements [3] and [4].

16 As to the argument regarding product category versus product
17description searching, although Phillips does not explicitly recite searching
18for items, the very presence of Phillips information in a web based document
19suggests one of ordinary skill would have alternatively employed the
20ubiquitous search engines such as in Sato and Ishikawa to find products if
21one was not already on the Phillips web site.

1 The Appellant has not sustained its burden of showing that the
2 Examiner erred in rejecting claims 2-36 under 35 U.S.C. § 103(a) as
3 unpatentable over Phillips, Sato and Ishikawa.

4 CONCLUSIONS OF LAW

5 The Appellant has sustained its burden of showing that the Examiner
6 erred in rejecting claims 1, 56, and 57, but has not sustained its burden of
7 showing that the Examiner erred in rejecting claims 2-36, under 35 U.S.C. §
8 103(a) as unpatentable over Phillips, Sato, and Ishikawa.

9 DECISION

10 To summarize, our decision is as follows:

- 11 • The rejection of claim 1 under 35 U.S.C. § 112, first paragraph, as not
12 enabling a person of ordinary skill in the art to make and use the
13 claimed subject matter from the original disclosure is not sustained.
- 14 • The rejection of claim 1 under 35 U.S.C. § 112, second paragraph, as
15 failing to particularly point out and distinctly claim the invention is
16 not sustained.
- 17 • The rejection of claims 1, 56, and 57 under 35 U.S.C. § 103(a) as
18 unpatentable over Phillips, Sato, and Ishikawa is not sustained.
- 19 • The rejection of claims 2-36 under 35 U.S.C. § 103(a) as unpatentable
20 over Phillips, Sato, and Ishikawa is sustained.

1 No time period for taking any subsequent action in connection with
2this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

3 AFFIRMED-IN-PART

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7hh

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